AGGRESSION IN RESPONSE TO SOCIAL REJECTION: GROUPS VS. INDIVIDUALS

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ABSTRACT OF THE THESIS

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Our desire to form social bonds with others reflects a fundamental need to belong. This need is fulfilled through interpersonal acceptance whereas interpersonal rejection (i.e., social exclusion) thwarts our belongingness needs. When individuals are deprived of the means to satisfy their belonging needs, they may react in negative, potentially aggressive, ways. Research has demonstrated that there is a causal relationship between social rejection and aggression, such that social rejection, either by individuals or groups, elicits aggressive behavior in individuals who experience it. However important, these findings are not informative about the effects of social rejection at the group level. That is, are groups prone to the same aggressive tendencies when exposed to social rejection, as are individuals? If groups react to social rejection by increasing aggression, how will groups’ aggression compare to aggression observed among rejected individuals? Several lines of research suggest that rejected groups may be more aggressive than individuals. According to emergent norm theory, collective group norms emerge when people find themselves in situations for which they do not have existing behavioral standards and they look to others for answers. For example, if one member of a group becomes aggressive, the rest of the group will adopt this behavior as the norm. Groups also tend to polarize, which may exacerbate this effect. Thus, we hypothesized that groups, in general, would be more aggressive than their individual counterparts. Secondly, we posited that groups would demonstrate a parallel relationship with individuals such that groups exposed to instances of social rejection will show more aggressive behavior than socially accepted groups. These hypotheses were tested in a study using a 2 (social interaction level: group vs. individual) x 2 (social reaction: acceptance vs. rejection) design. Participants (N= 304) were recruited from the psychology subject pool, and given course credit for participation. Groups (individuals) were told that other groups (individuals) chose (rejected) them as partners in an alleged team activity that would take place later in the experiment. Next, participants were given the opportunity to aggress against others by choosing a sound blast intensity and duration that allegedly would be administered to an unrelated bystander(s). Intensity and duration scores were used as measures of aggression. Results revealed that, as hypothesized, groups were significantly more aggressive than individuals. However, no evidence emerged that socially rejected groups or individuals were significantly more aggressive than those who were accepted. This finding runs counter to most findings from research exploring the anti-social outcomes of social rejection, indicating that rejected participants are more aggressive than accepted participants. Possible reasons for this disparity are discussed.
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CHAPTER 1

INTRODUCTION

Baumeister and Leary (1995) propose that we have an innate desire to form social bonds with others, and that this ‘need to belong’ is a fundamental human motivation. Therefore, interpersonal acceptance allows individuals to fulfill their need to belong, while interpersonal rejection (i.e., social exclusion) thwart our belongingness needs. In relation to this fundamental human motive, these two forms of social responses act as polar constructs on a continuum that lacks a true neutral point, where acceptance elicits pro-social behaviors and positive affect, and rejection engenders antisocial behaviors, negative affect, and aggression (Buckley, Winkel, & Leary, 2004; DeWall & Bushman, 2011; DeWall, Twenge, Bushman, Im, & Williams, 2010; Gaertner, Iuzzini, & O’Mara, 2008; Leary, Twenge, & Quinlivan, 2006; Twenge, Baumeister, Tice, & Stucke, 2001; Twenge et al., 2007; Williams & Warburton, 2003). Thus, when individuals are deprived of the means to satisfy their belonging needs, they may react in negative, potentially aggressive, ways (DeWall et al., 2010; Leary et al., 2006; Twenge et al., 2001; Williams & Warburton, 2003).

Several hypotheses have been proposed to explain how and why acceptance and rejection elicit such different behavioral and emotional responses, with specific interest in the direction of causality between social rejection and these social responses. One facet of the research, in particular, demonstrates that there is a relationship between social rejection and aggression. However, this relationship has only been established at the individual level. Thus, what is lacking in the literature is empirical evidence exploring the effects of social rejection at the group level. That is, are groups prone to the same aggressive tendencies when exposed to social rejection, as are individuals? If so, will groups be more or less aggressive, than their individual counterparts? These are important questions because there are many different groups that struggle with the possibility of being socially excluded. For example, the mentally ill, homosexuals (Shears & Jensema, 1969), racial and ethnic minorities (Steele & Aronson, 1995), and AIDS/HIV patients (Bennett, 1990) all have to cope with the potential risk of being rejected or possibly discriminated against.
Although related, it is important to note that discrimination and social rejection are not synonymous with one-another. Social rejection occurs when a group or individual has little desire to include someone else into their group and/or relationships. Behavioral expressions of this desire can range from passively ignoring the other person to actively rejecting them (i.e., explicitly banning individuals from group membership) (DeWall & Bushman, 2011; Leary, 2010). In contrast, discrimination is based on the actual or perceived affiliation someone has with a particular group, such that the intended behavior of one group produces differential and/or harmful treatment to the other (Pincus, 1996). Moreover, discrimination can be thought of as a variant of social rejection; thus, people may use discrimination as a means to socially reject others. For instance, prejudicial attitudes between Blacks and Whites may lead to a segregation between the two groups, such that neither group wants to associate with the other. In support of this notion, Leary (2010) argues that discrimination and stigmatization are varieties of rejection; he contends that people who are discriminated against are part of groups with low relational value (i.e., degree to which individuals regard their relationships with others as important). Furthermore, he posits that others will have little desire to interact with groups with low relational value.

Other researchers have also explored the role discrimination plays in relation to social rejection. Individuals (or groups) may be discriminated against for several reasons such as their race (Habl, Williams, Sunbermann, Kell, & Davies, 2012), socioeconomic status (Kabeer, 2000), or mental health condition (Sayce, 1998). In fact, researchers investigating the phenomenon of minimal group paradigm have found that even randomly created groups will discriminate against one-another (Tajfel, 1970). Therefore, it would seem that discrimination can manifest itself as a type of social rejection that targets particular out-groups. However, not all groups experience the same level of discrimination, if they experience it at all, and not all forms of social rejection are manifested as discrimination. Thus, for the purposes of this study we will focus on how groups experience and react to instances of social rejection that do not involve discrimination.

To investigate whether socially rejected groups are prone to the same aggressive tendencies as are individuals, we will first examine the literature on social exclusion at the individual level. Second, we will explore why this link may extend to the group level, and discuss the possible implications of such a finding.
INDIVIDUAL SOCIAL EXCLUSION

Over the last ten years or so, there has been an increasing interest in the effects of social exclusion on the individual. It is likely that part of this interest has been generated by the media in response to the several school shootings that took place in the mid-1990s to early 2000s. There has been a lot of speculation on whether or not social rejection played a part in these incidents. Several studies have documented a link between peer rejection and aggression (MacDugall, Hymel, Vaillancourt, & Mercer, 2001). There is also evidence to suggest that this link extends beyond the peer group (DeWall et al., 2010; Leary et al., 2006; Twenge et al., 2001; Williams & Warburton, 2003). Therefore, Leary, Kowalski, Smith, and Phillips (2003) sought out to examine whether social rejection is a plausible explanation for the aforementioned school shootings. The authors reviewed several case studies examining teasing, rejection and violence in school shootings, and found that in 13 out of the 15 incidents, the perpetrator experienced some form of social rejection (e.g., bullying, romantic rejection, or ostracism). There is also dating violence evidence that shows high levels of aggression in relationships where the couple is going through a separation, which may be perceived as a form of rejection (Leary et al., 2006). One study, in particular, found that feelings of rejection were one of the most common reasons men gave for killing their wives (Crawford & Gartner, 1992). In addition, researchers investigating the similarities between mass murder perpetrators have also found a link between rejection and violence, such that 90% of adult offenders experiencing a “triggering” event precipitating the mass murder (e.g., loss of job, breakup, insult by a colleague, etc.) (Meloy et al., 2004). However, it is important to note that although these studies do show a link between social rejection and aggression, they do not provide evidence for a causal direction between the two. Therefore, before we can say that social exclusion fosters aggression in those who experience rejection, this assertion needs to be empirically corroborated. It is possible that social rejection elicits aggressive behavior, or conversely, that aggressive individuals are socially excluded because of their aggressive nature.

One plausible theory is that that individuals who are viewed as aggressive may be more likely be viewed as undesirable companions. Thus, we may socially exclude aggressive individuals as a means for self-preservation. Some studies provide evidence to support that aggressive individuals are prone to social rejection. Developmental psychologists, for
example, have found that aggression elicits rejection among children, such that aggressive children are less accepted by their peer groups (Newcomb, Bukowski, & Pattee, 1993). However, more recent research has shown that bullying and aggression increase the popularity of children, such that adolescences use bullying as a means of gaining status (Caravita & Cillessen, 2012; Dias, Lisboa, Koller, & DeSousa, 2011; Dijkstra, Lindenberg, & Veenstra, 2008). Whereas some studies support the assertion that aggressive children are more likely to be rejected, recent evidence would suggest that aggressive children actually gain status for their aggressive behavior. Therefore, it seems most likely that the causal relationship works in the opposite direction; meaning, aggression is an outcome elicited by social rejection.

To further examine the causal direction of this relationship, Twenge et al. (2001) conducted a series of studies to examine whether aggression is a by-product of social rejection. In Study 1, participants wrote an essay about abortion and then evaluated a separate essay that was counter to their opinion. Afterward, they were exposed to a form of social exclusion or acceptance, which was operationalized using a “bogus” personality test that described one’s “future self.” Specifically, participants were told that they would have plenty of social relationships in the future, be completely alone, or that they will be accident prone later in life. After receiving the bogus results of their personality test, participants were given feedback (positive or negative) about the essay they wrote. Last, participants were told that they would have a chance to rate someone as a potential job applicant. The results suggest that individuals who were led to believe they would be socially rejected in the future rated the potential job applicant quite harshly compared to those who were led to believe they would be socially accepted or accident-prone. Also, this effect was exacerbated when the participants were given negative feedback. In the subsequent four experiments, there was also evidence to suggest that aggression is a by-product of social rejection, even against innocent bystanders (Study 5). It is important to note that whereas this study does support the hypothesis that social rejection elicits aggression, it does not “prove” the opposite direction of causality to be incorrect (i.e., that aggression leads to social exclusion).

Studies focusing on ways to ameliorate the effects of social exclusion have also corroborated the finding that aggression is an outcome of social rejection (DeWall et al., 2010; Twenge et al., 2007). Replenishing social connections, for example, has been found to
quell some of the negative side effects elicited by social exclusion (Twenge et al., 2007). If aggression can be reduced by alleviating the aversive effects brought upon by social rejection, it would then seem plausible to posit that the aggression that occurs after social exclusion is a result of the rejection and not due to an individual’s aggressive nature.

Although the existing literature indicates a causal link between social rejection and aggression, this relationship seems paradoxical given that aggression is hardly a behavior that fosters social acceptance. As previously mentioned, being socially rejected threatens our belongingness needs, and according to the literature on motivation, individuals who are deprived of their needs should work even harder to meet those needs (Shah & Gardner, 2007). However, aggression is not an agent that will allow individuals to satisfy their belonging needs and re-establish social connections. To the contrary, aggressive behavior will likely have the adverse effect, and estrange individuals from making further social connections. Thus, there have been several attempts to explain why this relationship exists. Some authors have proposed that emotional distress is the mediating factor in this relationship, such that fear is an innate reaction to social exclusion that produces anxiety in individuals who experience it (Baumeister & Tice, 1990). Thus, Baumeister and Tice (1990) would argue that it is the distress produced by this anxiety that mediates the relationship between social rejection and aggression. However, many other studies have since discredited this idea, and offered alternative explanations (Blackhart, Knowles, & Bieda, 2007; Twenge et al., 2001). For example, recent work exploring the effects of hostile cognitions in eliciting aggressive responses to social rejection may provide such an answer (DeWall, Twenge, Gitter, & Baumeister, 2009).

DeWall et al. (2009), conducted a study investigating the hypothesis that social rejection increases individuals’ tendency to perceive neutral stimuli as more hostile. They found that there was a hostile cognition bias associated with instances of social exclusion, such that socially rejected individuals, compared to socially accepted and control participants, were more likely to interpret ambiguous stimuli as hostile, which, in turn, fostered their own aggressive behavior. Thus, one plausible reason why socially excluded people are more aggressive, may be due to a hostile cognition bias, in which socially rejected people see neutral stimuli as more hostile, and are therefore more aggressive towards them.
However, it is important to note that this is just one of the possible mediators of this relationship.

Some authors have suggested that other mechanisms may better explain the relationship between aggression and social rejection. Several studies investigating ostracism, for example, have found possible moderators of the rejection-aggression link. Although ostracism and social rejection do not differ conceptually, as both are forms of social exclusion, many authors use the label of ostracism for instances in which individuals are socially excluded by being ignored, while the label of social rejection is more often used in cases where individuals are explicitly rejected (i.e., individuals indicate that they do not wish to form any sort of relationship with the rejected individual) (Leary, 2010; Williams & Warburton, 2003; Wittenbaum, Shulman, & Braz, 2010). Williams and Warburton (2003) propose that ostracism can both cause aggression and be an act of aggression. They postulated that ostracism has the unique capability to deprive individuals of four fundamental needs: the need to maintain high self-esteem, the need to control one’s situation (Warburton, Williams, & Cairns, 2006), the need for one’s existence to have meaning, and the need to belong (Baumeister & Leary, 1995). Specifically, according to the aggressive responding to ostracism model, control deprivation moderates the relationship between rejection and aggression, such that as perceived control increases, aggression decreases (Warburton et al., 2006). Warburton et al. (2006) randomly assigned participants to social acceptance or social exclusion conditions, and additionally manipulated whether or not participants had control over when they experienced sound blasts. The authors found that ostracized participants were more aggressive than those in the inclusion condition. Moreover, ostracized participants who suffered a further loss of control (e.g., no control over when they received sound blasts), were significantly more aggressive than all other groups. If, however, control was re-established prior to an opportunity to aggress (e.g., control over sound blasts), the relationship between rejection and aggression disappeared. Thus, not only does social rejection lead to aggression, but this effect is also moderated by personal control.

The research on potential moderators and mediators of the relationship between rejection and aggression do help partially explain the paradox that this relationship creates; however, it does not explain why we see other, non-aggressive reactions to social rejection. For example, there are instances in which people seek social acceptance and engage in pro-
social behaviors following an incidence of social exclusion in order to regain their feelings of inclusion (Smart Richman & Leary, 2009). Gardner, Pickett, and Brewer (2000) had participants socialize in an online chat room where they either experienced social rejection or acceptance. After interacting in the chat room, participants were instructed to read a diary from an undergraduate student that contained a variety of social (e.g., my roommate and I went out on the town tonight and had a really great time together) and non-social (e.g., I took a long peaceful walk by myself today, enjoying the beautiful weather) information. When asked to recall information from the diary, Gardner et al. (2000) found that participants in the social rejection condition remembered significantly more social related information than did participants who were accepted. In a similar vein, researchers exploring behavioral mimicry (i.e., the tendency to imitate others behaviors unconsciously) have found that those who experience rejection show increases in their mimicry behaviors (Lakin & Chartrand, 2003; Smart Richman & Leary, 2009) Thus, it seems that people become more responsive to social cues following incidents of social rejection, perhaps in hopes to rectify the social rejection they experienced.

In sum, there has been extant work examining the effects of social exclusion at the individual level. This work has established that social acceptance and social rejection elicit very different outcomes. In contrast to social acceptance, which engenders positive affect and pro-social behaviors, social rejection often elicits negative affect and aggression. Research has also established that social rejection and aggression are causally related. This is a paradoxical relationship that may be explained via hostile cognitions or as a possible reaction to a personal lack of control. This paradox is made even more puzzling because social rejection may trigger not only aggressive but also non-aggressive reactions (i.e., pro-social behaviors). There are still many questions left unanswered in regards to the relationship between social rejection and aggression; however, we cannot address them all within a single study. Thus, for the purposes of this study, we are interested in those particular questions that address groups. We will now turn our attention to the group literature to establish whether we can expect the rejection-aggression link to appear at the group level.
SOCIAL EXCLUSION OF GROUPS

There have been several studies examining causality, mediators, and moderators of the relationship between social exclusion and aggression, and yet, to our knowledge, there has been very little research exploring the basic principles of this phenomenon at the group level. There has, however, been empirical work investigating the effects of dyads (i.e., two person groups) ostracizing one another. Van Beest, Carter-Sowell, Van Dijk, and Williams (2012) examined whether distress and aggression levels of participants varied as a function of having a co-target present when they experienced an incidence of social rejection or inclusion. They had participants play a game of Cyberball (a virtual ball toss game, commonly used in ostracism research), either individually or with one other person. While playing the ball toss game, those in the ostracism condition were given the ball twice at the beginning and then never again afterwards; conversely, those in the inclusion condition received the ball one third of the time. After engaging in the Cyberball task, participants completed a general distress measure (Study 1), self-reported revenge measure (Study 2), and behavioral measurement of hot sauce allocation, which was used as a behavioral measure of aggression (Study 2). Van Beest and colleges (2012) concluded that members of dyads were hurt less by ostracism (i.e., showed less distress) than did individuals. Moreover, they found that dyads were significantly more likely to want to seek revenge and engage in more aggressive behaviors than their individual counterparts. This finding is the first study, to our knowledge, that examines how co-targets of the ostracism influence behavioral responses to ostracism.

One important limitation of this study is that the researchers operationally defined a group as a dyad. There is a disagreement among social scientists as to whether or not dyads are truly groups. Research exploring the aforementioned disagreement has found several reasons to support the premise the dyads should not be considered groups. According to Moreland (2010), people feel stronger emotions in dyads than they do groups and view dyads to be more ephemeral than groups. Moreover, he argues that groups are more complex than dyads and that there are certain group phenomena that cannot occur in dyads. Therefore, to better understand the phenomenon of groups being ostracized, research needs to replicate the findings of Van Beest and colleges (2012) using groups consisting of three or more members.
Although there has not been a lot of research exploring intragroup ostracism, there has been empirical work investigating the effects of ostracism by groups (i.e., groups as the source of the social exclusion). Gonsalkorale and Williams (2006) explored whether individuals still experienced the aversive effects of social exclusion when they were rejected by a despised out-group (e.g., KKK). They found that, regardless of which group ostracized them (political group or KKK), participants reported worse mood, and lower levels of self-esteem, belongingness, control and meaningful existence, than did those in the acceptance group. Thus, the need to belong is so powerful that exclusion/acceptance overrides one’s “feelings” toward the group, such that being ostracized by a despised group was just as distressing as being ostracized by a non-despised group. Other studies have implemented a “get acquainted task” to manipulate social exclusion. During this task, participants are told that they were either voted most liked in the group (acceptance condition) or that no one in the group chose them. Studies that have used this paradigm have found that rejection from a group elicits aggression in participants, similar to that exhibited in response to rejection by an individual (DeWall et al., 2010; Twenge et al., 2001; Twenge et al., 2007).

There should be a fundamental difference between social exclusion by groups (i.e., groups exclude individuals/other groups) and social exclusion of groups (i.e., exclusion of an entire group). In the former instance, groups are the perpetrator of the social rejection and in the latter they are the victims. Thus, an argument could be made that group members would have very different responses to social rejection when they are in one role versus the other, and that the role of perpetrator and victim elicit very different responses.

Theoretically, there should also be a difference between groups and individuals in how they respond to instances of social exclusion. For example, research shows that groups are both more aggressive, and more likely to be aggressed against, than are individuals (Meier & Hinsz, 2004). Therefore, one possibility is that groups will react to social rejection in more aggressive or aversive ways. However, the reverse is also plausible because groups may use their group affiliation as a buffer against the rejection. Mynatt and Sherman (1975), demonstrated that when groups experience negative consequences for giving bad advice, group members diffuse the responsibly and attribute less responsibility to themselves. Thus, perhaps group members will use the group as buffer to diffuse the effect of social rejection, as they will not have to face the social rejection on their own.
As previously stated, some authors have hypothesized that people will use their group membership as a buffer against social exclusion. That is, ostracized group members could make more external attributions and less internal attributions in explaining why they were rejected (Wirth & Williams, 2009). However, recent work examining this hypothesis shows that this is not the case. Wirth and Williams (2009) conducted a study, in which they had participants play a game of Cyberball and manipulated whether participants were part of a temporary group (same colored t-shirts), a permanent group (gender), or were not visibly part of any group. It was hypothesized that participants would make attributions for why they were excluded. Specifically, the authors hypothesized that (a) participants in the group condition would make more internal versus external attributions because the group can be viewed as an aspect of the participants’ social identity; or (b) participants would make more external attributions because they would use the group as a buffer against ostracism. The results indicate that ostracized participants actually made more internal and external attributions, which provides evidence that group identification is not a likely moderator of the response to ostracism. However, due to these surprising results, this is a finding we would want to see replicated in future studies. Goodwin, Williams, and Carter-Sowell (2010) also investigated whether or not people use their group membership (e.g., race) as a buffer toward ostracism, and found that when participants attributed ostracism to racism, it impeded their recovery from the aversive effects produced by ostracism. It appears that group membership does not buffer the effects of ostracism. In fact, it seems that when participants’ group membership was salient, they had a more difficult time recovering from an incidence of social rejection, than when their group membership was not salient. Thus, it seems that groups may have a harder time dealing with instances of social rejection, than do individuals.

Betts and Hinsz (2013) sought to extend the research on social rejection to small groups to help answer the question of how group-based rejection differs from individual-based rejection. Specifically, they refer to group-based rejection as marginalization (i.e., the intentional rejection of a group by multiple out-group others). They posit that hostility should be more prominent among marginalized groups in comparison to rejected individuals. The basis of this prediction lies in Smart Richman and Leary (2009) multi-motive theory, which suggests that reactions to social rejection take one of three forms: anti-social (i.e., aggression), pro-social (i.e., increases behavioral mimicry) or avoidant behaviors. Moreover,
Smart Richman and Leary (2009) contend that these outcomes depend on how the rejection is construed, and identify six construals that can be made when someone experiences rejection. These include (a) expectations of relational repair, (b) the possibility of alternative relationships, (c) the perceived cost of rejection, (d) the chronicity and pervasiveness of the rejection, (e) the value of the relationship, and (f) the perceived unfairness of the rejection. Based on these construals, Betts and Hinsz (2013) predict what they will look like in a group context. Specifically, they propose that groups will put a lower value on relationships, view relationship repair as unlikely, and will be more likely to perceive the rejection as unfair, in comparison to individuals. Furthermore, they believe that these reactions will lead to increases in anti-social behaviors. They suggest that membership in a marginalized group may imply that group members are not alone in their feelings of isolation, and this feeling of unity may promote feelings of unfairness among members, which leads to anti-social behaviors. Moreover, according to research exploring intergroup interactions, the mere anticipation of interacting with a group increases hostility in participants; thus, if interactions with group members are likely to be hostile, the likelihood of relationship repair would be low, again increases the probably of anti-social behavior. In addition to these increases in anti-social behaviors, Betts and Hinsz (2013) also predict that groups will view the perceived cost of rejection as lower, discourage pro-social reactions, and view the possibility for alternative relationships as more plausible, which may lead to avoidant behaviors. In sum, Betts and Hinsz (2013) present a solid foundation of theory to explain why groups are more likely to react in anti-social, versus pro-social, ways following episodes of rejection. However, it is important to note that while the theory is sound, there has been no research to date that have tested its postulates.

It seems that the closest we have gotten to actually investigating the social exclusion of groups, are the studies exploring the effects of social rejection on individuals who have a salient group membership. Wittenbaum et al. (2010) were interested in the effects of group composition (i.e., homogenous in-groups or groups with two out-group members and one in-group member—the participant) on the aversive side-effects elicited by ostracism. They found that these effects (e.g., lowered self-esteem, belongingness, and meaningful existence) are moderated by group composition. Specifically, the targets who were rejected by mixed groups (groups consisting of an in-group and out-group member) felt worse than those
rejected by homogenous out-groups. In a similar vein, Schaafsma and Williams (2012) explored the differential effects of rejection by ethnic in-groups versus ethnic out-groups. They found that individuals rejected by their out-group showed significantly more hostility than those rejected by their in-group. Thus, when the out-group was the perpetrator of the ostracism, in comparison to the in-group, participants were significantly more hostile. These findings suggest that reaction to social exclusion varies as a function of social identity and group membership.

In conclusion, it seems that an individuals’ (or groups’) reaction to social rejection depend on how the rejection is construed. However, Betts and Hinsz (2013) propose that groups, in general, tend to construe the rejection in more extreme ways, and posit they will engage in anti-social behaviors. Therefore, in line with this research, I hypothesize that groups will react to instances of social rejection in more aversive and aggressive ways, than will individuals. However, to fully explore this hypothesis, we must first explore the literature on group aggression.

**GROUP AGGRESSION**

Society has long had the assumption that groups have greater potential for aggression than do individuals (Jaffe & Yinon, 1979; Le Bon, 1895/1969). However, empirical evidence supporting this claim is scarce. One of the first investigations that looked into group aggression was the classic Robber’s Cave Study (Sherif, Harvey, White, Hood, & Sherif, 1961). This complex study examined the interactions between two groups of boys attending a summer camp. The two groups were separated for the first eight days while at camp, and during this time neither group knew of the others existence. Subsequently, the groups were allowed to interact and the boys began competing in several games. However, the inter group competition soon became so intense that the boys had succumb to name-calling (e.g., “cheaters”) and eventually these interactions became aggressive (e.g., fist fights, stealing, etc.).

The Robber’s Cave study is a prime example of how group competition can lead to aggression, and it is interesting to note that this phenomenon is not solely restricted to humans. Sorrentino, Schino, Massaro, Visalberghi, and Aureli (2012) investigated how between-group hostility in capuchin monkeys would affect within-group interactions and
found that mere exposure to another group produced increased levels of hostility and aggression and caused social relationships within the group to deteriorate. Thus, the fact that group competition elicits an aggressive response may be an evolutionarily-based behavior. Research exploring the discontinuity effect also supports the premise that intergroup competition increases hostile behaviors. For example, research has repeatedly shown that intergroup interactions are far more hostile and competitive than interindividual interactions (Insko et al., 1998; Wildschut, Insko, & Pinter, 2007).

Aside from studies examining group competition, there have also been a few studies comparing aggression committed by groups versus individuals. Specifically, Jaffe and Yinon (1979) examined retaliatory aggression in groups and individuals, and found that after provocation, groups retaliated much harsher than did individuals. Similarly, in a study exploring physical aggression and its escalation, the authors found that, compared to individuals, groups inflicted more severe physical punishments (Jaffe, Shapir, & Yinon, 1981). Meier and Hinsz (2004) compared aggression among four different types of interactions: intergroup, interindividual, individual-to-group, and group-to-individual. Their results revealed that intergroup interactions were more aggressive than interindividual interactions, and groups received, and were the perpetrator of, more aggressive acts than were individuals. Thus, it does appear that groups, in general, are more aggressive than individuals, and that this occurs in situations in which group competition is absent.

There have been several attempts at explaining why groups tend to be more aggressive than their individual counterparts. Le Bon (1895/1969) was one of the earliest theorists who attempted to explain group behavior and he hypothesized that groups form a collective mind, which produces “contagious”—possibly destructive—behavior among its members (as cited in Prislin & Crano, 2012). He argued that crowds create a state of “suggestion,” such that individuals will accept other’s ideas without question. Stripped of their individuality, crowds will favor the acceptance of extreme opinions, which often result in aggressive behavior (e.g., riots). However, later theories, such as Turner and Killian’s (1957) emergent norm theory, offer other explanations. According to emergent norm theory, collective group norms emerge when people are in situations where they do not know what to do, and look to others for answers (Locher, 2002). Once one group member engages in a behavior, the rest of the group will follow suit—people tend to conform to the norms of their
social surrounds. Therefore, if one member of a group becomes aggressive, the rest of the group will adopt this behavior as the norm. Although both of the aforementioned theories explain why groups may be aggressive, neither explains why groups are more aggressive than individuals.

Meier and Hinsz (2004) offer a possible explanation; they posit that perhaps group polarization (i.e., the strengthening of a group’s attitudinal and/or behavioral response after group discussion) can explain why groups are more aggressive than individuals. When groups “polarize” there is an increase in the extremity of group responses and behaviors (Myers & Lamm, 1976). Thus, it is possible that, at the individual level, the natural reaction to social rejection is to become more aggressive, and that group polarization exacerbates these aggressive tendencies at the group level. Hence, this data supports our hypothesis that groups will be more aggressive when exposed to instances of social exclusion.

**PRESENT STUDY**

In the present study I hypothesize that groups exposed to instances of social rejection will show more aggressive behavior than groups who experience acceptance. Second, I hypothesize that rejected and accepted groups will be more aggressive than their individual counterparts. To test these hypotheses, we had both groups and individuals write an essay that illustrates why they are good teammates. Before participants began writing, they were told that the essays would be used to choose teammates for a later team activity. Afterward, they had an opportunity to choose another group/individual as potential teammates. Once participants had made their choice they were informed that either everyone (i.e., social acceptance) or no one (i.e., social rejection) wanted to be their teammates. Participants then had the opportunity to choose an intensity and duration of a sound that would ostensibly be administered to another participant/group. The intensity and duration of the blast was used as a measure of aggressive behavior. We hypothesized that socially rejected groups will have the highest noise-blast score, whereas socially accepted individuals will have the lowest.
CHAPTER 2

METHOD

PARTICIPANTS

Participants were 304 undergraduate students at San Diego State University of whom number (77.6%) were female and number (22.4%) male. Participants received course credit for their involvement. The ethnic background of participants was as follows: African Americans (5.9%), Caucasian Americans (41.4%), Asian/Pacific Islander (16.1%), Hispanic American (18.4%), mixed race (12.2%), and other (4.9%). The average age of participants was 19.48 years (SD = 2.95 years).

PROCEDURE

Participants were scheduled to show up at the lab individually or in groups of three to four, depending on the experimental condition. They were told that they would take part in two unrelated studies, one of which was designed to explore the process of team selection and decision-making, whereas the second study ostensibly investigating the effect of noise distraction on creative performance. To foster the feeling of group unity, participants in the group condition were told that the prescreening survey revealed that they share several latent traits in common with one another; thus, they were paired as a group based on this similarity. However, we did not indicate which particular “traits” they had in common. To bond the group even further, participants were instructed to solve as many RAT (remote association test) items as they could in five minutes (e.g., what word is related to falling, actor and dust?). While groups participated in this task together, individuals completed the RAT items alone as a filler task.

After participants completed the RAT items, they were told that they would engage in a team activity later on in the experiment. Consequently, they were instructed to spend ten minutes writing about why they would be good teammates (individual condition) or why they, as a group, would be a good addition to a larger team. One group member was randomly assigned to write the essay, and the other group members were able to contribute
ideas. Participants were told that there were currently four other groups/individuals participating in the same study, and that after the writing task they would exchange essays with the other groups/individuals for evaluation.

After the 10-minute writing exercise period, the experimenter collected the essays and asked each participant to fill out a short survey to gauge participants’ cognitive representation of their interaction with others in the experiment (see below). While participants were filling out this survey, the experimenter left, ostensibly to retrieve the essays from the other groups/individuals purportedly participating in the study. The “other” essays were prewritten beforehand because there were no actual “other” groups or individuals. Upon return, the experimenter collected the surveys from participants and presented them with the “other” essays. Participants were instructed to read through the essays and pick the one they would most like to work with on the team activity. Next, they were told about the ostensible feedback from the “other” group, which served to operationalize social rejection/acceptance. Depending on the experimental condition, they received one of the following feedbacks:

**Social Rejection and Acceptance** were operationalized by adapting the procedures used by DeWall and Bushman (2009), Twenge et al. (2007), and Vorauer, Cameron, Holmes, and Pearce (2003). Specifically, participants in the *social rejection* condition were told

> I am not sure what happened, but none of the other groups (individuals) chose you as a team member(s)…. Um, do you guys (you) know anyone else in the other groups or something? [The experimenter waited for participants to say no.] Well, hmm, I guess we won’t be doing the team activity then because I can’t ask participants to do something that s/he is uncomfortable with. Um, okay, well we will just continue to the second experiment.

Participants in the *social acceptance* condition were told:

> Well it looks like all of the other groups (individuals) chose you to be on their team. Since all of the teams picked you, we will pair you with the group (person) you chose to work with. However, since we have to set up for the team activity, we are going to have to start the second part of the experiment now, and we will continue the team activity afterwards.

Participants were then told that the second experiment they would partake in is an exercise investigating the effects of noise distraction on creative performance. The experimenter explained that there is another group/individual (matched for condition) in the other room working on a task that measures creative ability. Furthermore, they were told that
they were assigned the role(s) of enforcer(s), while the participant(s) in the other room were assigned the role of receiver(s). As an enforcer, it was their job to set the intensity of noise blasts the other group/individual would be exposed to. Each participant was instructed to write down the intensity of the noise blast they wanted to implement and also write down how long it should last (i.e., duration). Groups were then asked to come to a consensus on the intensity and duration of the sound blast (this served as our group-consensus measure). Once a consensus had been reached, each participant was given a word completion task and was instructed to complete as many of the words as they could in five minutes. Finally, participants completed the manipulation checks, and afterwards they were be probed for suspicion, debriefed, and thanked for their participation.

MEASURES

Cognitive Representation of Social Interaction: Participants were asked to rate (1=not at all to 7=very much), “When you are with the others in this experiment, how much do you think it will feel like (1) one group, (2) two groups, and (3) separate individuals?” (adapted from Dovidio, Gaertner, Isen, & Lowrance, 1995; Gaertner, Mann, Murrell, & Dovidio, 1989; Gaertner, Mann, Dovidio, Murrell, & Pomare, 1990).

Noise Blast. The intensity and duration of the noise blast was used to assess aggression (DeWall et al., 2010; Twenge et al., 2001; Twenge et al., 2007). We standardized each self-reported intensity and duration score and combined them to form a composite measure of aggression. Participants in the group condition were instructed to choose a duration and intensity on their own, and then were asked to come to a group consensus on intensity and duration. We standardized both self-reported scores and consensus scored as two separate composite measures. Higher intensities and longer duration, dictate higher aggression scores.

Word Completion task. This task, which represents a shortened version of a task developed by DeWall and Bushman (2009), was used as a second implicit measure of aggression. Specifically, participants were given a list of partially completed words, and were asked to fill in the missing letters. Each word could be completed via a neutral word or an aggressive word (e.g., completing “ki-” with kiss versus kill). Aggression was measured by the amount of aggressive words participants completed.
**Manipulation Check.** To assess efficacy of our operationalization of social rejection, we asked participants, “How rejected versus accepted did you feel after receiving the feedback about your (group’s) essay?” (1=*strongly rejected* to 7=*strongly accepted*). Secondly, we asked them, “How excluded versus included did you feel after receiving the feedback about your (group’s) essay?” (1=*strongly excluded* to 7=*strongly included*).

**Pre-Screen Measures.** In order to assess certain individual differences among participants, we included measures of narcissism and collective self-esteem in the pre-screen psychology survey. Completion of the pre-screen survey was a perquisite for participation in this study. According to past research, individuals who experience social rejection show decreases in their self-esteem (Gonsalkorale & Williams, 2006; Warburton et al., 2006; Williams, & Warburton, 2003). Secondly, research has also found that individuals high in narcissism are more likely to engage in unprovoked aggression (Reidy, Foster, & Zeichner, 2010). In order to rule out narcissism and collective self-esteem as potential mediators or moderators of the relationship between rejection and aggression, we collected data on both measures and controlled for them during our analysis. To measure narcissism we used a shortened version of the Narcissistic Personality inventory (NPI-16), which has been validated by previous research (Ames, Rose, & Anderson, 2006). Secondly, we used the Collective Self-Esteem Scale developed by Luhtanen and Crocker (1992), which consisted of 4 sub-scales that measure different aspects of a person’s collective self-esteem.
CHAPTER 3

RESULTS

OVERVIEW

The data were analyzed via a 2 (Status: Group vs. Individual) x 2 (Condition: Rejection vs. Acceptance) analysis of covariance (ANCOVA), using age, narcissism, gender, and the four collective self-esteem sub-scales as co-variates. Dependent measure included self-reported intensity and duration, group-consensus intensity and duration, and number of aggressive words completed during the word completion task (note that group-consensus intensity scores were compared to individual self-reported scores). Although it was my intention to combined intensity and duration scores into a composite, our independent variables had unique relationships with each dependent variable separately; so I choose not combine intensity and duration into a composite score.

Past research has demonstrated that the analysis of clustered (i.e., group) data results in correlated errors among the independent observations within a group (Barcikowski, 1981; Krull & MacKinnon, 2001). Thus, for the purposes of our analyses a group ID was assigned to each participant and the data were aggregated across groups in order to account for the dependence in the design. Once aggregation was complete, outlier analyses were performed, and the effectiveness of our manipulation checks were investigated. Lastly, we conducted separate ANCOVAs for each dependent variable of interest.

OUTLIER ANALYSIS

After examining the data it was apparent that there were several outliers present for our measures of duration. This was the only numeric measure not assessed on a pre-constructed scale. Rather, participants were free to decide the amount of seconds they wished the sound blast to last. In order to correct for the skew these outliers presented, we removed participants that fell three standard deviations away from the mean. Using this method, we removed eight observations (7 in the group-acceptance condition and 1 in the group-rejection condition) from the data set.
Manipulation Checks

Participants evaluated how rejected versus accepted they felt on two separate manipulation check items. Reliability analyses also revealed that both manipulation check items were significantly correlated, $r(294)=.708$, $p<.01$, $\alpha=.828$. Thus, the manipulation check items were combined form a single scale. As expected, participants in the rejection condition felt notably more rejected and excluded ($M=2.86$, $SD=1.15$) than those that were socially accepted ($M=6.03$, $SD=1.20$), $F(1,123)=323.689$, $p<.001$, $r^2=.725$. In addition, a marginally significant interaction between status and condition was also found, $F(1,123)=3.44$, $p=.066$, $r^2=.027$. Simple effects tests revealed that, within the rejection condition, groups felt notably more rejected than did individuals, $F(1,123)=4.97$, $p=.028$, $r^2=.039$. However, no significant differences were found between groups and individuals, within the acceptance condition, in regard to how rejected versus accepted participants felt, $F(1,123)=.157$, $ns$, $r^2=.001$.

One of the tasks participants were instructed to complete was the Cognitive Representation of Social interaction Scale. We used this measure as a manipulation check for the group versus individual manipulation. Results revealed that participants in the group condition felt significantly more like one group ($M=5.41$, $SD=1.12$) than did participants in the individual condition ($M=4.43$, $SD=1.09$), while individuals felt significant more like separate individuals ($M=4.21$, $SD=1.80$) than did group members ($M=3.27$, $SD=1.69$), $F(1,293)=36.43$, $p<.001$, $r^2=.11$; $F(1,293)=14.03$, $p<.001$, $r^2=.05$, respectively. Also, individuals felt significantly more like they were part of two different groups ($M=3.93$, $SD=1.36$) than were those in the group condition ($M=3.13$, $SD=1.64$), $F(1,293)=11.88$, $p=.001$, $r^2=.04$. We can conclude from these manipulation checks that groups felt as though they were part of a cohesive group, while individuals felt more independent and not a part of one larger group.

Covariates

Cronbach’s alpha was used to assess the internal reliability of both the collective self-esteem and narcissism scales. As recommended by Luhtanen and Crocker (1992), we split the collective self-esteem scale into the four subscales that compromise it: membership self-esteem, public collective self-esteem, private collective self-esteem, and importance to identity. Each subscale consisted of four items and demonstrated reasonable internal
consistency: membership self-esteem ($\alpha = .775$), public collective self-esteem ($\alpha = .818$) and importance to identity ($\alpha = .704$). We also assessed the internal consistency of the 16-item NPI scale ($\alpha = .676$), which matched the approximate reliability of the scale found in previous studies (Ames et al., 2006). As a covariate, I did not find any significant relationships between narcissism and intensity ($F(1,115) = .76, ns$), duration, ($F(1,115) < .01, ns$) or number of aggressive words ($F(1,115) = .02, ns$). Moreover, there were no significant relationships between the importance to identity and public self-esteem subscales and our dependent variables of interest ($p > .05$). However, membership self-esteem was significantly related to both individual self-reported intensity and group-consensus intensity $F(1,115)=7.37, p=.008$, $r^2=.06$; $F(1,115)=12.27, p=.001$, $r^2=.10$, respectively. Thus, the more people see themselves as “good” group members, the higher their aggression scores were, on average. In addition, there was also a significant relationship between private self-esteem and both intensity measures, such that the higher an individuals’ or group members’ private self esteem score (i.e. the positive evaluations of one’s own group) the less aggressive they were on the sound blast measures, $F(1,115)=8.85, p=.004$, $r^2=.07$; $F(1,115)=9.19, p=.003, r^2=.07$.

Both age and gender were examined as covariates for our model. The results revealed that age was negatively correlated with the number of aggressive words participants completed on the word task, $F(1,115)=4.92, p=.03$, $r^2=.04$. Therefore, the older the participant was, the fewer aggressive words he/she thought of. In order to control for gender, I looked at the proportion of females to males within each group and created a ratio (so we could aggregate across group). Not surprisingly, a negative correlation was found between gender and both self-reported intensity and duration of the sound blasts, $F(1,115)=8.68, p=.004$, $r^2=.07$; $F(1,115)=7.89, p=.006, r^2=.06$ respectively. It appears that the more females within a group, the less aggressive the group tends to be. Similarly, gender was also found to be negatively correlated with the group consensus measures of intensity and duration, $F(1,115)=6.19, p=.014, r^2=.05$; $F(1,115)=5.98, p=.016, r^2=.05$, respectively.

**Main Analyses**

In support of my second hypothesis, I found that groups, in general, are more aggressive than individuals. The ANCOVA revealed that group members’ self-reported
Intensity scores ($M=6.82$, $SD=1.21$) were significantly higher than those reported by individuals ($M=5.70$, $SD=2.24$), $F(1, 115)=14.83$, $p<.001$, $r^2=.11$. In addition I found that group consensus measures of intensity were significantly greater for groups ($M=7.11$, $SD=1.59$) than the self-reported intensity scores for individuals ($M=5.70$, $SD=2.24$), $F(1, 115)=14.83$, $p<.001$, $r^2=.11$. In Figure 1 & 2. However, I found no statistically significant difference between groups ($M=11.60$, $SD=2.30$) and individuals ($M=10.52$, $SD=3.45$) in regard to the number of aggressive words solved, $F(1, 115)=2.72$, $ns$, $r^2=.02$ (See Figure 3). Moreover, I also found no significant differences between groups and individuals in regard to their self-reported duration or group consensus measures of duration, $F(1,116)= .90$, $ns$, $r^2=.01$; $F(1,116)=1.55$, $ns$, $r^2=.01$, respectively.

I posited that socially rejected groups and individuals would be more aggressive than socially accepted groups (hypothesis 1), however, data provided no support for this hypothesis. Instead, I found that there were no significant differences between rejected and accepted participants for self-reported intensity, number of aggressive words, or group consensus intensity, $F(1,115)=1.49$, $ns$, $r^2=.01$; $F(1,115)=.73$, $ns$, $r^2=.01$; $F(1,115)=2.85$, $ns$, $r^2=.02$, respectively. If anything, it seems that accepted participants were slightly more aggressive than rejected participants, in both the individual and group conditions (See Table 1). In line with this trend, there was a significant effect of rejection/acceptance on
Figure 2. Consensus intensity as a function of status & condition.

Figure 3. Number of aggressive words as a function of status & condition.
Table 1. Means for Aggression Measures as a Function of Status and Condition

<table>
<thead>
<tr>
<th></th>
<th>Group</th>
<th>Individual</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rejected</td>
<td>Accepted</td>
</tr>
<tr>
<td>Intensity</td>
<td>6.58 (1.22)</td>
<td>7.08 (1.16)</td>
</tr>
<tr>
<td>Consensus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intensity</td>
<td>6.69 (1.50)</td>
<td>7.56 (1.58)</td>
</tr>
<tr>
<td>Duration</td>
<td>8.13 (5.57)</td>
<td>12.73 (10.04)</td>
</tr>
<tr>
<td>Consensus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Duration</td>
<td>9.94 (9.01)</td>
<td>13.15 (13.98)</td>
</tr>
<tr>
<td>Word Count</td>
<td>62.93 (6.23)</td>
<td>64.43 (9.67)</td>
</tr>
<tr>
<td>Aggressive Words</td>
<td>11.69 (2.23)</td>
<td>11.50 (2.40)</td>
</tr>
<tr>
<td></td>
<td>5.64 (1.89)</td>
<td>5.75 (2.58)</td>
</tr>
<tr>
<td></td>
<td>9.25 (11.59)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10.90 (3.38)</td>
<td>10.14 (3.54)</td>
</tr>
</tbody>
</table>

Note: N = 126 groups. Standard deviations are given in parentheses.

self-reported duration of the sound blast, such that accepted participants indicated significantly longer sound blasts than rejected participants, $F(1, 115)=5.59, p=.02, r^2=.05$. Lastly, I found no significant interaction effects between status (group, individual) and condition (rejection, acceptance) on any of our aggressive measures. Thus, differences in aggressive behavior between groups and individuals did not vary as a function of whether participants were rejected or accepted (See Table 2).
Table 2. Aggression Measures as a Function of Stats, Condition, & Status*Condition

<table>
<thead>
<tr>
<th>Intensity</th>
<th>F</th>
<th>p</th>
<th>r^2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status</td>
<td>14.83</td>
<td>&lt;.001**</td>
<td>0.11</td>
</tr>
<tr>
<td>Condition</td>
<td>1.48</td>
<td>0.225</td>
<td>0.01</td>
</tr>
<tr>
<td>Status*Condition</td>
<td>0.275</td>
<td>0.601</td>
<td>0.004</td>
</tr>
</tbody>
</table>

Consensus

<table>
<thead>
<tr>
<th>Intensity</th>
<th>F</th>
<th>p</th>
<th>r^2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status</td>
<td>19.39</td>
<td>&lt;.001**</td>
<td>0.14</td>
</tr>
<tr>
<td>Condition</td>
<td>2.86</td>
<td>0.094</td>
<td>0.02</td>
</tr>
<tr>
<td>Status*Condition</td>
<td>1.17</td>
<td>0.282</td>
<td>0.01</td>
</tr>
</tbody>
</table>

Aggressive Words

<table>
<thead>
<tr>
<th>Intensity</th>
<th>F</th>
<th>p</th>
<th>r^2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status</td>
<td>2.72</td>
<td>0.100</td>
<td>0.02</td>
</tr>
<tr>
<td>Condition</td>
<td>.73</td>
<td>0.394</td>
<td>0.01</td>
</tr>
<tr>
<td>Status*Condition</td>
<td>0.45</td>
<td>0.506</td>
<td>0.004</td>
</tr>
</tbody>
</table>

Note: ns = p is non-significant at .05 level
** significance at .01 level; * significance at .05 level
CHAPTER 4

DISCUSSION

The purpose in this study was to explore whether groups and individuals differentially respond to social rejection. In support of hypothesis 2, I found that, on average, groups were more aggressive than their individual counterparts, which is in line with previous research on group aggression, discontinuity effects, and intergroup competition. Moreover, these findings replicate the findings of Van Beest and colleges (2012), who found that dyads exposed to social rejection were also more aggressive than individuals. As previously mentioned, there are several distinctive differences between dyads and smalls groups (e.g., dyads are more ephemeral; groups are more complex); thus, the finding that both dyads and groups have similar aggressive responses is informative. It seems that the mere presence of a co-target significantly increases the willingness of a person to become more aggressive. Perhaps people in a group setting feel less responsible for their actions, and therefore are less inhibited in their aggressive behaviors.

Researchers examining the phenomenon of diffusion of responsibility have found that people are less likely to engage in helping behavior when in groups (Darley & Latané, 1968). Moreover, people will engage in more antisocial behaviors in groups consisting of other similarly motivated individuals (Mathes & Kahn, 1975). Bandura, Underwood, and Fromson (1975) sought out to examine whether personalized responsibility or diffused responsibility among group members increased aggression. They found that escalation of aggression was significantly higher for groups in the diffusion versus personalized responsibility conditions. Thus, the reduction of an individual’s personal responsibility elicited an increase in their aggressive behavior. In a similar vein, Mathes and Kahn (1975) also sought to provide support for the premise that the diffusion of responsibility increases antisocial behavior. They had participants come into the lab individually or in groups of three, and exposed them to situations where they would feel high or low desires to partake in revenge seeking behaviors. Then the researchers gave the participants an opportunity to engage in revenge seeking behaviors over several trials. Mathes and Kahn (1975) found that in situations where revenge
is highly desired, groups took increasing revenge over time, whereas individuals showed an initial increase in revenge but it decreased over time. Results of several studies provide evidence that groups engage in the diffusion of responsibility and that this diffusion elicits an increase in antisocial behaviors, relative to individuals.

In regard to hypothesis 1, however, I failed to find any statistically significant differences between rejected and acceptance participants in relation to their aggressive behaviors. That is rejected participants were no more (or less) aggressive than those who were accepted. This finding runs counter to most findings from research exploring the antisocial outcomes of social rejection, indicating that rejected participants are more aggressive and hostile than accepted participants. In fact, in my study, socially accepted participants were slightly more aggressive than rejected participants, although this difference was not significant. This finding cannot be attributed to my failure to successfully operationalize social rejection and acceptance. As the manipulation checks show, participants in the social rejection condition, indeed felt significantly more excluded (versus included), and those who were accepted felt significantly more included (versus excluded). However, it is important to note that I did also find a marginal status by condition interaction effect on how rejected versus accepted participants felt following our exclusion (acceptance manipulation). It appears that groups within the rejection condition felt notably more rejection than did individuals, whereas groups and individuals in the acceptance condition demonstrated no differences in regard to their feelings of rejection. Theoretically, this would provide further evidence that socially rejection groups should be the most aggressive, however, that is not supported by the findings. This is a curious finding and future literature should focus on answering why groups feel more rejected following social exclusion, and more importantly, why they do not show increases in aggressive responding, given rejection seems to hurt them the most.

There are several possible explanations as to why rejected participants did not show increases aggressive behaviors. For instance, according to social impact theory, the influence of a source on a target is dependent on the number of targets available (Latané, 1981; Van Beest et al., 2012). Since the negative reactions elicited by social exclusion are often a result of our belongingness needs being violated, perhaps rejection may be tempered by sharing the experience with co-targets. It is also probable that participants’ belongingness needs have
already been satisfied by their current group, such that rejection from another group does not elicit any negative reactions. However, these explanations only clarify why groups that were socially rejected were no more or less aggressive that group who were accepted. These explanations do not pertain to individuals. According to the extant literature, individuals who are socially rejected should be more aggressive than those who are socially accepted (DeWall & Bushman, 2011; DeWall et al., 2010; Twenge et al., 2001). To understand what may account for the failure to replicate these results, I now turn to other possible explanations.

There are some instances in which people engage in more pro-social (versus anti-social) behaviors following an episode of social rejection (Smart Richman & Leary, 2009). As previously mentioned, people make different construals about the rejection episode they experience, and their reactions to rejection are dependent upon how they perceived these construals. Smart Richman and Leary (2009) posit that people will engage in pro-social behaviors to help restore their sense of acceptance. However, this is an unlikely explanation for the effects I found in the current study. If rejected participants did engage in more pro-social behaviors, relative to those who experienced acceptance, there should still be a significant difference between the two conditions, which I did not find. In addition, participants experienced a social rejection paradigm that is consistent with increases in antisocial behaviors (i.e., participants should have viewed expectations of relationship repair as unlikely, viewed the value of the relationship as low, and the incident of rejection as unfair). Therefore, increases in pro-social behaviors as an outcome of social rejection is an unlikely explanation for the lack of replication found in the current study. Perhaps a more plausible explanation would be a methodological flaw in the design.

There is one important methodological difference between my study and previous studies that used the noise blast paradigm. Specifically, previous studies using this paradigm had participants set the intensity and duration of the sound blasts themselves, and actually hit the button implementing the blast. Conversely, in this study participants self-reported the intensity and duration of the blasts they thought would be implemented. This slight but important difference in the procedure may be responsible for the difference in findings. Research has demonstrated that self-reports (on anticipated behavior) may not always translate into actual behavior (Nisbett & Wilson, 1977). For example, people are not always accurate at self-reporting their behaviors (e.g., Fan et al., 2006). Additionally, their self-
reports may be motivated by factors different from those that motivate actual behavior (e.g., social desirability may govern self-reports more than actual behaviors) (Adams et al., 2005; Van de Mortel, 2008). In retrospect, it is possible that changing a behavioral measure of aggression to a self-reported scale, may have influenced our participants’ reactions. For example, perhaps the self-report measure gave participants more time to ruminate about the task and they answered more thoughtfully. Another possibility is that social desirability played a factor and participants expected the experimenter to judge them if they were being too harsh. Thus, it seems that this methodological flaw in the design is likely the most viable explanation for the disparity between my results and the findings from previous research.

The question of whether groups and individuals differ in their aggressive responding to social rejection has not been adequately answered by the current study. Although I found that groups were significantly more aggressive than individuals, I did not find a main effect of social rejection on aggression. This is concerning because previous research has replicated this relationship at the individual level. I have discussed various explanations as to why this disparity exists, and the most plausible explanation seems to be a methodological flaw in the design. Therefore, I would recommend that future researchers implement both self-report and behavioral measures of aggression to see if both are capable of capturing the rejection-aggression relationship that other researchers have found. Secondly, I would suggest that research continues to explore whether groups respond similarly or different in regard to social rejection. Recent theories on group marginalization (i.e., Betts & Hinsz, 2013) have posited that groups will respond to social rejection in more anti-social ways, relative to individuals. Thus, future research should focus on answering and providing support for some of these theories.
REFERENCES


Wirth, J. H., & Williams, K. D. (2009). 'They don't like our kind': Consequences of being ostracized while processing a group membership. *Group Processes & Intergroup Relations, 12*(1), 111-127.